

M E M O R A N D U M

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SUBJECT: Operational Position Statement for August 25 – August 31, 2015

The U.S. Army Corps of Engineers (USACE) is responsible for managing Lake Okeechobee water levels and makes operational decisions about whether to retain water or release water based on their regulation schedule release guidance (2008 LORS). The USACE makes this decision taking into account the best available science and data provided by its staff and a variety of partners, which includes the South Florida Water Management District (SFWMD).

The SFWMD team has discussed the system-wide environmental conditions, the water supply conditions, and has evaluated the overall status of the water management system. Detailed reports are available at the SFWMD Operational Planning internet page.

This Position Statement is for the period from August 25 through August 31, 2015. At the time of this recommendation, the Lake Okeechobee stage is 0.06 feet into the Base Flow Sub-band. The Lake Okeechobee stage rose out of the Beneficial Use Sub-band on August 23rd. Correspondingly Part C and Part D of the 2008 LORS recommend regulatory releases to the WCAs and the estuaries to manage lake stages. The SFWMD concurs with the USACE decision to implement no regulatory releases to both the estuaries and south to the WCAs during this operational period. This decision considered the current stages and flows and the uncertainty in Tropical Storm (TS) Erika and local basin runoff.

The SFWMD governing board directed staff to use the SFWMD's Lake Okeechobee Adaptive Protocols (AP) release guidance as the basis for S-77 release recommendations to the USACE when the lake stage is within or below the Base Flow Sub-band. Correspondingly, with the stage in the Base Flow Sub-band the SFWMD staff recommendation is to follow the Lake Okeechobee AP release guidance, which calls for no lake releases at S-77 because the Caloosahatchee Estuary does not "need" freshwater per the salinity criterion. Specifically, the 30-day average salinity is projected not to exceed the 5 practical salinity units (psu) criterion at the Val-I75 site within the next two weeks.

The most recent Climate Prediction Center (CPC) outlook for Central and South Florida indicates increased chances of below normal rainfall for the month of September and equal chances (EC) of below, normal and above-normal precipitation for the three-month window September to November. The CPC rainfall outlook for the 2015-2016 dry season predicts a substantial increase in the likelihood for above-normal precipitation. SFWMD rainfall through 26-August is below average, with only the Upper Kissimmee, WCA-1 and WCA-2 basins reporting slightly above-normal rainfall. Rainfall for the next week is forecast to be above average, while the second week forecast is uncertain at this point, depending on the evolution of TS Erika in the Atlantic.

Over the 7-day period from August 18 to August 24, 2015, there were no deliveries from Lake Okeechobee to the STAs.

2008 LORS Release Guidance (Part C): The Lake Okeechobee stage is currently within the Base Flow Sub-band and Part C of the 2008 LORS release guidance recommends “Up to Maximum Practicable to the WCAs if desirable or with minimum Everglades Impacts”.

Consistent with the two-week LORS release decision the USACE implemented on August 21, 2015, the USACE is not requesting the SFWMD to implement maximum practicable Lake Okeechobee regulatory releases to the WCAs for this operational period. An additional consideration for not making regulatory releases south is the weather uncertainty the District is facing at this point in time. TS Erika could bring considerable rainfall to the District, and as the storm approaches Florida, the major EAA canals and the STAs could be operating in pre-storm operations and flood control mode, leaving no capacity for Lake Okeechobee releases south. In the case there is no major impact from TS Erika, the wet season up to this point is below normal and the CPC rainfall outlook for September 2015 is below normal. The lake stage has been in the Base Flow Sub-band for only a few days and it is advisable to postpone evaluating the need for releases until a more definite stage rise occurs.

2008 LORS Release Guidance (Part D): The Lake Okeechobee stage is currently within the Base Flow Sub-band and Part C of the 2008 LORS release guidance is “S-79 up to 450 cfs and S-80 up to 200 cfs”

No regulatory releases from Lake Okeechobee to the St. Lucie and Caloosahatchee Estuaries have occurred since 29-May and 12-June, respectively. Over the past week, no flows entered the St. Lucie Estuary through S-80. Flow at S-79 averaged approximately 4,000 cfs with a small contribution from the lake through S-77. SFWMD Lake scientists report that from an ecological point of view the current lake stage is below optimal for this time of the year, and they recommend a steady increase in stage, not to exceed 0.5 feet per month throughout the wet season.

Currently, there are no ecological benefits associated with additional releases from Lake Okeechobee to the estuaries. In the St. Lucie Estuary, salinity was in the good range for adult oysters. In the Caloosahatchee Estuary, salinity continued to be in the good range for adult oysters at Shell Point and Sanibel, but dropped to the poor range at Cape Coral due to relatively high basin runoff. Salinities were also in the good range for tape grass in the upper-Caloosahatchee Estuary, and are forecasted to remain so over the next two weeks, even with no flow through S-79.

In contrast to the more northern estuaries, conditions in Florida Bay continue to be hypersaline with salinities 10 to 32 psu above average for this time of year, with the lowest salinity at 45 psu. The cause is below average rainfall for the Everglades and the southern portion of the District, high evaporation, and lack of freshwater inflows into the Bay. No operational actions are possible at this point in time to reverse these conditions. Transition to a more typical wet season rainfall in south Florida will improve these conditions.

SFWMD Lake Okeechobee Adaptive Protocol (AP) Release Guidance

This week the SFWMD's Lake Okeechobee Adaptive Protocol (AP) release guidance flowchart is applicable since the Lake Okeechobee stage is within the Base Flow Sub-band of the 2008 LORS. The Adaptive Protocols process is documented in the District publication Final Adaptive Protocols for Lake Okeechobee Operations (September 16th, 2010).

This week the Lake Okeechobee AP release guidance suggests no releases from Lake Okeechobee at S-77. This week's outcome is based on the current and forecast salinity at the Val-I75 site being below the 5 psu threshold. The specific salinity criterion in the AP release guidance states “Estuary ‘needs’ water when the 30-day moving average salinity at I-75 bridge is projected to exceed 5 psu within 2 weeks.” If the dry conditions continue and the 14-day salinity forecast

shows the 30-day moving average staying below 5 psu, then the AP guidance will continue to suggest no releases at S-77.

For additional information pertaining to operations history and past recommendations, refer to the archives of LORS-2008 Release Guidance outcomes and operational position statements at www.sfwmd.gov under the Operational Planning topic.